Chapter 1 Administration. ADOPT <u>Appendix Chapter 1</u> of the 2006 International Fire Code, as amended below:

SECTIONS 104, 106, 107, 110: No changes.

SECTIONS 101 through 103: REVIEW FOR AMENDMENT.

SECTION 105 PERMITS: ADD the following Permits:

105.6.X Battery system. An operational permit is required to operate stationary lead-acid battery systems having a liquid capacity of more than 100 gallons (378.5 L).

<u>105.6.X Combustible material storage</u>. An operational permit is required to store more than 2,500 cubic feet (70.8 m³) gross volume of combustible empty packing cases, boxes, barrels or similar containers, or rubber or cork, or other similarly combustible material.

105.6.X Day care facility. An operational permit is required to operate any day care home or facility which provides day care for adults or children.

105.6.X Highrise buildings. An operational permit is required to operate any building exceeding seventy-five feet to the highest floor level above the grade floor fire department access level. See California Code of Regulation Title 24, Part 2.

105.6.X Institutions. An operational permit is required to operate any health facility as defined in Section 1250 of the California Health and Safety Code, with an occupant load of more than six persons, or to operate any jail or facility where personal liberties of the occupants are restrained. See California Code of Regulation Title 24, Part 2.

105.6.X Motor vehicle fuel-dispensing stations. To dispense flammable or combustible liquids, liquefied petroleum gases, compressed natural gas or liquefied natural gas at motor vehicle fuel-dispensing stations.

105.6.X Multi-story building. An operational permit is required to operate any building which is not a high-rise building, but has four or more floors. See Section 3.09 of Title 19 of the California Code of Regulations.

<u>105.8.6.X</u> Residential care facility. An operational permit is required to operate any residential care or service facility, as described in the building code, accommodating more than six persons.

105.8.6.X Woodworking. An operational permit is required to conduct woodworking operations involving mass production or involving more than one of each type of machine, or where machines are used continuously (as opposed to intermittently) or substantial products of sawdust may be a problem. See Chapter 19.

NOTE: All of these Permits are carryovers from the existing San Jose Muni Code or from the previous Califonia Fire Code.

AMEND the following Permits:

105.6.9 Covered mall buildings. An operational permit is required for:

- 1. The placement of <u>kiosks</u>, retail fixtures and displays, concession equipment, displays of highly combustible goods and similar items in the mall.
- 2. The display of liquid- or gas-fired equipment in the mall.
- 3. The use of open-flame or flame-producing equipment in the mall.
- 4. The use of a covered mall as a place of assembly.

105.6.24 Lumber yards, and woodworking plants, and fire wood storage. An operational permit is required for the storage or processing of lumber exceeding 100,000 board feet (8,333 ft³) (236 m³), or for the storage of fire wood in excess of ten cords.

105.6.42 Storage of <u>tires</u>, **scrap tires and tire byproducts**. An operational permit is required to establish, conduct or maintain <u>outdoor</u> storage of <u>tires</u>, scrap tires and tire byproducts that exceeds 2,500 1,000 cubic feet (71 m³) of total volume of scrap tires and for indoor storage of tires and tire byproducts.

105.6.43 Temporary membrane structures, tents and canopies. An operational permit is required to operate an air-supported temporary membrane structure or a tent having an area in excess of 200 square feet (19 m²), or a canopy in excess of 400 square feet (37 m²).

Exceptions:

- 1. Tents used exclusively for recreational camping purposes.
- 2. Fabric canopies open on all sides which comply with all of the following:
 - 2.1 Individual canopies having a maximum size of 700 square feet (65 m²).

- 2.2 The aggregate area of multiple canopies placed side by side without a fire break clearance of not less than 12 feet (3658 mm) shall not exceed 700 square feet (65 m²) total.
- 2.3 A minimum clearance of 12 feet (3658 mm) to structures and other tents shall be provided.

105.7.13 Temporary membrane structures, tents and canopies. A construction permit is required to erect an air-supported temporary membrane structure or a tent having an area in excess of 200 square feet (19 m²), or a canopy in excess of 400 square feet (37 m²).

Exceptions:

- 1. Tents used exclusively for recreational camping purposes.
- 2. Funeral tents and curtains or extensions attached thereto, when used for funeral services.
- 3. Fabric canopies open on all sides which comply with all of the following:
 - 3.1 Individual canopies having a maximum size of 700 square feet (65 m²).
 - 3.2 The aggregate area of multiple canopies placed side by side without a fire break clearance of not less than 12 feet (3658 mm) shall not exceed 700 square feet (65 m²) total.
 - 3.3 A minimum clearance of 12 feet (3658 mm) to structures and other tents shall be provided.

SECTION 108 BOARD OF APPEALS. DELETE the entire section.

NOTE: San Jose Muni Code already has a section on appeals.

SECTION 109 VIOLATIONS. REVIEW FOR AMENDMENT.

SECTION 111 STOP WORK ORDER. REVIEW FOR AMENDMENT.

Chapter 2 Definitions, AMEND the following definition:

FIRE CODE OFFICIAL. The fire chief <u>or the fire marshal</u>, <u>other designated authority charged</u> <u>with the administration and enforcement of the code</u>, or a duly authorized representative.

NOTE: The new Code uses "fire code official" where the old Code used "fire chief" or "fire marshal."

ADD the following definitions:

COVERED MALL BUILDING. For the definition of a covered mall building, refer to California Building Code Section 402.

NOTE: There is a permit for Covered Mall Buildings, but no definition in the Fire Code.

WORKSTATION is a defined space or independent principal piece of equipment using hazardous materials where a specific function, laboratory procedure or research activity occurs. Approved or listed hazardous materials storage cabinets, flammable liquid storage cabinets or gas cabinets serving a workstation are included as part of the workstation. A workstation is allowed to contain ventilation equipment, fire protection devices, electrical devices, and other processing and scientific equipment.

NOTE: this language is in current SJFC; definition is removed from Chapter 18. COUNTY AMENDMENT.

Chapter 3 General Precautions Against Fire, ADOPT Chapter 3 of the 2006 International Fire Code, including California amendments, as amended below:

Delete Section 311.5.2 Placard size and color.

Delete Section 311.5.3 Placard date.

Delete Section 311.5.4 Placard symbols.

Delete Section 311.5.5 Informational use.

NOTE: we do not see any need to define a Placard this way.

Chapter 4 Emergency Planning and Preparedness, ADOPT Chapter 4 of the 2006 International Fire Code as amended below:

404.3.1 Fire Evacuation Plans. Fire evacuation plans shall include the following:

- 1. Emergency egress or escape routes and whether evacuation of the building is to be complete or, where approved, by selected floors or areas only.
- 2. Procedures for employees who must remain to operate critical equipment before evacuating.
- 3. Procedures for accounting for employees and occupants after evacuation has been completed.
- 4. Identification and assignment of personnel responsible for rescue or emergency medical aid
- 5. The preferred and any alternative means of notifying occupants of a fire or emergency.
- 6. The preferred and any alternative means of reporting fires and other emergencies to the fire department or designated emergency response organization.
- 7. Identification and assignment of personnel who can be contacted for further information or explanation of duties under the plan.
- 8. A description of the emergency voice/alarm communication system alert tone and preprogrammed voice messages and visual warning devices, where provided.

NOTE: this language is taken from California statutory language.

Chapter 5 Fire Service Features, ADOPT Chapter 5 of the 2006 International Fire Code, including California amendments, as amended below:

503.1.1 Buildings and facilities, Exception: The fire code official is authorized to increase the dimension of 150 feet (45 720 mm) where:

- 1. The building is equipped throughout with an approved automatic sprinkler system installed in accordance with Section 903.3.1.1, 903.3.1.2 or 903.3.1.3
- 2. Fire apparatus access roads cannot be installed because of location on property, topography, waterways, nonnegotiable grades or other similar conditions, and an approved alternative means of fire protection is provided.
- 3. There are not more than two Group R-3 or Group U occupancies.

NOTE: San Jose does not allow use of NFPA13R.

503.1.2 Additional Access. The fire code official is authorized to require more than one fire apparatus access road based on the potential for impairment of a single road by vehicle congestion, condition of terrain, climatic conditions or other factors that could limit access. <u>A second point of access is required when a fire apparatus access road exceeds 1,000 feet.</u>

NOTE: this language is a modification from current SJFC 902.2.2.4.

503.2 Specifications. Fire apparatus access roads shall be installed and arranged in accordance with Sections 503.2.1 through 503.2.7. <u>Additional requirements are contained within the San</u> Jose Standard for Fire Apparatus Access Roads, as approved by the local fire code official.

NOTE: the intent here is to develop a local "Standard" working with Planning, Building, DOT, Public Works, and the development community, that would allow more flexibility, and NOT try to make hard definitions for "additional requirements" in the SJFC.

503.2.3 Surface. Fire apparatus access roads shall be designed and maintained to support the imposed loads of fire apparatus (<u>75,000 pounds</u>) and shall be surfaced so as to provide all weather driving capabilities.

NOTE: the language in current SJFC 902.2.2.2 is 69,000 pounds; this is more up-to-date.

503.2.7 Grade. The grade of the fire apparatus access road shall <u>not exceed fifteen percent</u> (15%) be within the limits established by the fire code official based on the fire department's apparatus.

NOTE: this language is in current SJFC 902.2.2.6.

ADD new section:

504.4 Access Control Devices. When access control devices including bars, grates, gates, electric or magnetic locks or similar devices which would inhibit rapid fire department emergency access to the building are installed, such devices shall be approved by the local fire code official. All access control devices shall be provided with an approved means for deactivation or unlocking by the fire department. Access control devices shall also comply with Chapter 10 for exiting.

NOTE: this language is in current SJFC 902.5. Also a COUNTY AMENDMENT.

505.1 Address Numbers. REPLACE all existing language with the following: Approved numbers or addresses shall be placed on all new and existing buildings in such a position as to be plainly visible and legible from the street or road fronting the property. Numbers shall contrast with their background. Subunits of any building or complex, not having individual addresses, shall be identified in a consistent manner, either numerically or alphabetically, using a logical sequence. Unit numbers or letters shall be affixed near the main entrance of each occupancy in such a position as to be plainly visible and legible. Lighted directory maps may be required at building complex entrances or other locations, as specified by the chief.

NOTE: Existing language in SJFC 901.4.4. Also a COUNTY AMENDMENT.

ADD new section:

507.4 Roof Guardrails at Interior Courts. Roof openings into interior courts that are bounded on all sides by building walls shall be protected with guardrails. The top of the guardrail shall not be less than 42 inches in height above the adjacent roof surface that can be walked on. Intermediate rails shall be designed and spaced such that a 12-inch diameter sphere cannot pass through.

NOTE: Intent is to protect Firefighters from falling through interior shafts that extend to roofs. Also a COUNTY AMENDMENT.

AMEND Section 508.5 Fire hydrant systems as shown below:

508.5.1 Where required. Where a portion of the facility or building hereafter constructed or moved into or within the jurisdiction is more than 400 feet (122 m) from a hydrant on a fire apparatus access road, as measured by an approved route around the exterior of the facility or building, on-site fire hydrants and mains shall be provided where required by the fire code official.

Exceptions:

- 1. For Group R-3 and Group U occupancies <u>fully sprinklered throughout</u>, the distance requirements <u>may be modified by the local fire code official</u> shall be 600 feet (183 m).
- 2. For buildings equipped throughout with an approved automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2, the distance requirement shall be 600 feet (183 m).

NOTE: San Jose requires hydrants closer together; the intention is to provide some flexibility.

Chapter 6 Building Services and Systems, AMEND as follows:

603.4 Portable unvented heaters. Portable unvented fuel-fired heating equipment shall be prohibited in occupancies in Groups A, E, I, R-1, R-2, R-3, and R-4. <u>Use in other occupancies shall require approval from the fire code official</u>.

NOTE: Intent is to regulate use where the State does not restrict it, maintaining current level of life safety. Different language from County Amendment. County includes language about "outside uses."

608.6 Ventilation. Ventilation of stationary storage battery systems shall comply with Sections 608.6.1, 608.6.2, and 608.6.3.

NOTE: Needed to add language below.

ADD new section:

<u>608.6.3 Ventilation shutdown</u>. Failure of the ventilation system shall result in immediate shutdown of the charging system.

NOTE: Intent is to prevent buildup of Hydrogen gas. Also a COUNTY AMENDMENT.

Chapter 9 Fire Protection Systems, AMEND as follows:

903.2 Where required. Approved automatic sprinkler systems in new buildings and structure shall be provided in the <u>following</u>: <u>locations described in this section</u>.

- 1. Throughout new buildings and structures that exceed 6,200 square feet;
- 2. Throughout new buildings and structures that are four or more stories in height, regardless of floor area;
- 3. In other new buildings and structures in this section when the existing language is more restrictive;
- 4. Throughout existing buildings and structures where an increase is made to the floor area that results in the building exceeding 10,000 square feet;
- 5. Throughout existing buildings and structures with a floor area greater than 10,000 square feet, wherein the existing occupancy is changed to an occupancy that is more hazardous in accordance with the California Building Code.

NOTE: Slight rewording to current requirements in SJ Muni Code. NEEDS TO MATCH UP WITH LANGUAGE IN BUILDING CODE.

903.2 Where required, Exception 1. When approved by the local fire code official," spaces or areas in telecommunications buildings used exclusively for telecommunications equipment, associated electrical power distribution equipment, batteries and standby engines, provided those spaces or areas are equipped throughout with an automatic fire alarm system and are separated from the remainder of the building by fire barriers, consisting of not less than 1-hour fire-resistance-rated walls and 2-hour fire-resistance-rated floor/ceiling assemblies.

NOTE: San Jose currently allows this under specific conditions, on a case-by-case basis.

903.2.7 Group R, Exception 1. Detached one- and two-family dwellings and multiple single-family dwellings (town houses) not more than three stories above grade plane in height with a separate means of egress, unless specifically required by other sections of this code or classified as Group R-4.

NOTE: San Jose does not allow exceptions for townhouses, except as noted below.

903.2.7 Group R, Exception 2. Group U private garages accessory to a Group R-3 occupancy, unless attached to a multiple single-family dwelling(s)."

NOTE: This is the exception noted above.

Add new section:

903.2.7.1 Balconies and decks. Sprinkler protection shall be provided for exterior balconies, decks and ground floor patios of dwelling units where the building is of Type V construction. Sidewall sprinklers that are used to protect such areas shall be permitted to be located such that their deflectors are within 1 inch (25 mm) to 6 inches (152 mm) below the structural members and a maximum distance of 14 inches (356 mm) below the deck of the exterior balconies and decks that are constructed of open wood joist construction.

NOTE: This is currently allowed in Group R construction, and all language is being moved from Section 903.3.1.2.1 which is related to NFPA 13R. That section is deleted below.

903.3.1 Standards. Sprinkler systems shall be designed and installed in accordance with Sections 903.3.1.1, 903.3.1.2, or 903.3.1.3.

NOTE: San Jose does not allow use of NFPA13R.

Delete 903.3.1.2 NFPA 13R sprinkler systems. (Delete entire Section. Move 903.3.1.2.1 to a new section, 903.2.7.1, mentioned above.)

NOTE: San Jose does not allow use of NFPA13R.

903.3.1.1.1 NFPA 13 sprinkler systems, Exempt locations, Delete 3. Generator and transformer rooms separated from the remainder of the building b walls and floor/ceiling or roof/ceiling assemblies having a fire-resistance rating of not less than 2 hours.

NOTE: San Jose does not exempt generator and transformer rooms from fire protection requirements.

903.3.5.1.1 Limited area sprinkler systems, 2. The domestic service shall be capable of supplying the simultaneous domestic demand and the sprinkler demand required to be hydraulically calculated by NFPA 13, NFPA 13R or NFPA 13D.

NOTE: San Jose does not allow use of NFPA13R.

Delete 903.3.5.1.2 Residential combination services. A single combination water supply shall be allowed provided that the domestic demand is added to the sprinkler demand as required by NFPA 13R.

NOTE: San Jose does not allow use of NFPA13R.

903.4 Sprinkler system monitoring and alarms. Delete Exception 3. Automatic sprinkler systems installed in accordance with NFPA 13R where a common supply main is used to supply both domestic water and the automatics sprinkler system, and a separate shutoff valve for the automatic sprinkler system is not provided.

NOTE: San Jose does not allow use of NFPA13R.

907.2.12 High-rise buildings, Delete Exception 5. Buildings with an occupancy in Group H-1, H-2 or H-3 in accordance with Section 415 of the *California Building Code*.

NOTE: There is no rationale to exempt "H Occupancies" from alarm requirements in high-rise buildings.

- 914.3.1 High-rise buildings, Automatic sprinkler system. Delete all Exceptions.
- 914.4.1 Atriums, Automatic sprinkler system. Delete Exception 1.
- 914.6.1 Stages, Automatic sprinkler system. Delete Exception 1 and Exception 2.

Chapter 14 Fire Safety During Construction and Demolition, AMEND as follows:

1401.1 Scope. This chapter shall apply to structures in the course of construction, alteration, or demolition, including those in underground locations. Compliance with NFPA 241 is required for items not specifically addressed herein. <u>Additional safeguards are required by local ordinance</u>.

NOTE: This references San Jose's local ordinance.

1413.1 Where required. Buildings four three or more stories in height shall be provided with not less than one standpipe for use during construction. Such standpipe shall be provided with fire department hose connections at accessible locations adjacent to usable stairs and the standpipe outlets shall be located adjacent to such usable stairs. Such standpipe shall be installed when the progress of constructions is not more than 40 feet (12 192 mm) in height above the lowest level of fire department access. Such standpipe shall be extended as construction progresses to within one floor of the highest point of construction having secured decking or flooring.

NOTE: This matches current SJFC language 17.12.1080

Chapter 18 Semiconductor Fabrication Facilities, AMEND as follows:

1802 Definitions, CONTINUOUS GAS DETECTION SYSTEM. A gas detection system where the analytical instrument ismaintained in continuous operation and sampling is performed without interruption. Analysis is allowed to be performed on a cyclical basis at intervals not to exceed 30 minutes 5 minutes.

NOTE: Consistent with existing language. Does not match County Amendment, which only restricts this for occupied areas.

1802 Definitions, delete definition of WORKSTATION.

NOTE: Definition has been modified and moved to Chapter 2. Also a COUNTY AMENDMENT.

Chapter 22 Motor Fuel Dispensing Facilities and Repair Garages, AMEND as follows:

2208.1 General. Motor fuel-dispensing facilities for compressed natural gas (CNG) fuel shall be in accordance with this section and Chapter 30. Within the limits established by law restricting the storage of CNG for the protection of heavily populated or congested commercial areas, the aggregate capacity of any one installation shall not exceed 183,000 cubic feet (5 181 974 L).

NOTE: Current requirement in San Jose.

Chapter 25 Tire Rebuilding and Tire Storage, ADOPT entire chapter.

NOTE: San Jose has Tire Storage areas. This chapter is needed to provide regulations.

Chapter 27 Hazardous Materials – General Provisions, AMEND as follows:

2703.3.1 Unauthorized discharges. When hazardous materials are released in quantities reportable under state, federal, or local regulations, the fire code official shall be notified and The fire department shall be notified in an approved manner when an unauthorized release of hazardous materials escapes confinement, or is contained but presents a threat to health or property, or becomes reportable under state, federal or local regulations. The fire department shall be notified immediately in an approved manner when there is a threatened release of hazardous materials that could cause immediate harm to life or property. In any of these events, the following procedures required in accordance with Sections 2703.3.1.1 and 2703.3.1.4.

NOTE: Modification blending current language in SJ Muni Code 17.12.820, with modification to the specific requirements.

Chapter 33 Explosives and Fireworks, DO WE NEED TO INCORPORATE IFC CHAPTER 33? ADD local regulations as follows:

Incorporate San Jose Muni Code Sections 17.12.710 through 17.12.740:

Reference: Permit 105.6.14 Explosives, and 105.6.36 Pyrotechnic special effects material.

17.12.710 Bond for permit to use explosive materials (2001 CFC 7701.4).

Section 7701.4 of the 2001 California Fire Code is amended to read as follows:

7701.4 Bond. The permittee shall furnish a bond or certificate of insurance in the amount deemed adequate by the chief and city risk manager for payment of damages which could be caused either to a person or persons or to property by reason of the permitted activity and arising from acts of the permittee, agents, employees, or subcontractors. (Ords. 25005, 25838, 26735.)

17.12.720 Bond for public display of fireworks (2001 CFC 7802.4.3).

Section 7802.4.3 of the 2001 California Fire Code is amended to read as follows:

7802.4.3 Bond. The permittee shall furnish a bond or certification of insurance in the amount deemed adequate by the chief and the city risk manager for payment of damages which could be caused either to a person or persons or to property by reason of the permitted activity and arising from acts of the permittee, agents, employees, or subcontractors. (Ords. 25005, 25838, 26735.)

17.12.730 Sale and use of fireworks.

Except where otherwise expressly provided in this code, it shall be unlawful for any person to possess, store, offer for sale, expose for sale, sell at retail, or use or explode any fireworks. (Ords. 25005, 25838, 26735.)

17.12.740 Bond for use of pyrotechnic special effects materials (2001 CFC 7803).

Section 7803 of the 2001 California Fire Code is amended by adding the following new subsection to be numbered and entitled as follows:

7803.10 Bond for use of pyrotechnic special effects materials. The permittee shall furnish a bond or certification of insurance in the amount deemed adequate by the chief and the city risk manager for payment of damages which could be caused either to a person or persons or to property by reason of the permitted activity and arising from acts of the permittee, agents, employees, or subcontractors.

(Ords. 25005, 25838, 26735.)

Chapter 34 Flammable and Combustible Liquids, AMEND as follows:

3402 Definitions. Add definition:

FLOATING ROOF TANK. A tank that incorporates either:

- 1. A pontoon or double-deck metal floating roof in an open-top tank, or
- 2. A fixed metal roof with ventilation at the top and roof eaves and containing a metal floating roof or cover meeting the following requirements:
 - 2.1 A pontoon or double-deck metal floating roof, or
 - 2.2 A metal floating cover supported by liquid-tight metal pontoons or floats that provide sufficient buoyancy to prevent sinking of the cover when one half of the pontoons or floats is punctured.

An internal metal floating pan, roof or cover that does meet the requirements of Item 2, or one that uses plastic foam, except for seals, for floatation, even if capsulated in metal or fiberglass, shall be treated as a fixed roof tank.

NOTE: San Jose has a tank farm with floating-roof tanks. There is no definition in CFC.

3404.2.4 Sources of ignition, Exception. Areas designated as smoking and hot work areas, and areas where hot work permits have been issued in accordance with this code.

NOTE: No exception for smoking in haz mat areas.

3404.2.5.8 Overfill prevention, Exception: Outside above ground tanks with a capacity of 1320 gallons (5000L) 500 gallons or less.

NOTE: Maintains current level at which overfill prevention is required. Also a COUNTY AMENDMENT.

3404.2.11 Underground tanks. <u>Underground storage tanks shall be installed according to manufacturer's recommendations.</u> Underground storage of flammable and combustible liquids in tanks shall comply with Section 3404.2 and Sections 3404.2.11.1 through 3404.2.11.5.2.

NOTE: Adds requirement on installation.

3404.2.13.1.4 Tanks abandoned in place, item 3. Remove Exception.

NOTE: No rationale for the exception.

3405.3.2 Bonding of vessels. Where differences of potential could be created, vessels containing Class I or Class II liquids or liquids handled at or above their flash points shall be electrically connected by bond wires, ground cables, piping or similar means to a static grounding system to maintain equipment at the same electrical potential to prevent sparking.

NOTE: Many Class II liquids are above their flash points on hot days. This tightens the requirement for bonding.

Chapter 45 Referenced Standards, AMEND as follows:

Delete NFPA 13R

Add NFPA 96-01, "Standard for Hood and Duct Systems"

Add NFPA 318-02, "Installation Standard for Fire Protection Systems in Clean Rooms"

ADD existing local amendments (NOTE: this is existing Muni Code language, with several amendments and deletions; the numbering of the sections matches the NFPA Standard:

17.12.1120 Sprinkler systems standards for one and two family dwellings (NFPA 13D-2002).

NFPA 13D-2002 edition, including appendices is amended as follows:

Section 1.1: Amend to add the following:

If the installation is voluntary, the installation shall comply with NFPA 13D-2002, without the amendments. If the installation is required by applicable code, or in lieu of site access, or to satisfy an equivalency approved by the fire marshal, the building shall be fully sprinklered and the following amendments to each section shall apply.

Section 6.3: Amend to add the following:

(8) No valve shall be allowed which shuts off the automatic sprinkler system without turning off the domestic water supply.

Section 7.5: Amend to add the following:

7.5.9 Spare sprinklers shall be provided as required by NFPA 13-2002 Section 6.2.9.

Section 8.1.3: Amend to add the following:

8.1.2.1.6 Pilot sprinklers shall be provided in the attics and between floors where floor/ceiling assemblies consist of open web wood joists or trusses. Pilot sprinklers shall be two hundred twelve degrees Fahrenheit, 7/16 inch orifice. Pilot sprinklers shall be located within twelve inches of the structure and/or at the apex of each ridgeline when applicable. A sprinkler is required where the ridgeline and hips converge. Sprinklers shall be spaced at maximum thirty feet centers (maximum fifteen feet from outside walls) and shall be located at all heat and fire sources including furnaces, hot water heaters, above kitchen ranges, etc.

Section 8.6: Amended to delete: 8.6.4, 8.6.5, and 8.6.6. (Ords. 25005, 25838, 26735.)

17.12.1130 Sprinkler systems installation standards (NFPA 13-2002).

NFPA 13-2002 edition is amended as follows:

Section 6.3: Amend to add the following:

6.3.9 All abandoned pipes shall be removed from the premises. If abandoned pipes cannot be removed, they shall be permanently marked as "abandoned in place" to the satisfaction of the San José Fire Department

Section 7.3.2.5: Amend to add the following:

7.3.2.6.1: Non-galvanized fittings shall be permitted.

Section 8.4.3: Amend to delete all exceptions and add the following:

Extended coverage heads shall not be used. Only ½-inch standard spray sprinklers shall be used.

Section 8.14.10: Amend to add the following:

8.14.10.4 Fire sprinkler system risers or other controls shall not be located in electrical rooms.

Section 8.15.1.1.1: Amend to add the following:

Each floor and basement level of a building shall be provided with a floor control valve in an approved location.

Section A-9.1.3.9.3: Delete.

Section A-9.1.3.9.4: Delete.

Section 9.3.5.9: Amend to delete 9.3.5.9.4 and add the following:

A lock washer shall be located between the flat washer and nut.

Figure 9.3.5.9.1: Delete lag screws and lag bolts in wood table.

Section 9.3.7.9: Delete.

Section 11.2.3.2: Amend to add the following:

11.2.3.2.10 For light hazard areas designated for office use, one-inch plugged, threaded outlets shall be provided at each head. The minimum flow shall be 22.5 gpm. The outlet K-factor shall be 5.07 (one-5.6 K-factor head with 10 feet of one-inch pipe, two 90 degree elbows connected to a common branch line outlet by one foot of one inch pipe).

Extended coverage sprinkler heads shall not be used. Only standard one-half-inch standard spray sprinklers shall be used.

11.2.3.2.11 When a fire sprinkler system is required in buildings of undetermined use with ceilings of fourteen feet or less, they shall be installed for an ordinary hazard occupancy with a minimum design density of not less than 0.2 gpm/square feet, with a minimum design area of 3,000 square feet. The system demand, including 250 gpm for hoses, shall be designed at a minimum of ten percent below the available water supply. One-inch plugged, threaded outlets shall be provided at each head. Where a subsequent occupancy requires a system with greater capability, it shall be the responsibility of the owner and/or occupant to upgrade the system.

11.2.3.2.12 Buildings of undetermined use with floor to structure height greater than fourteen feet, a fire sprinkler system shall be installed for an extra hazard occupancy with a minimum design density of 0.33 gpm/square feet with a minimum design area of 3,000 square feet. The system demand including 500 gpm for hoses shall be designed at a minimum of ten percent below the available water supply. One-inch plugged, threaded outlets shall be provided at each head. In addition, a four-inch grooved capped outlet shall be provided on the riser prior to any system control valve. Where a subsequent occupancy requires a system with greater capability, it shall be the responsibility of the owner and/or occupant to upgrade the system.

Section 11.2.3.2.3: Delete.

Section 14.4.1: Amend to add the following:

14.4.1.5: Water supply data shall be reduced by ten percent prior to applying hydraulic calculations.

Section 14.4.4: Amend to add the following:

14.4.4.10: The maximum velocity of water flowing through hydraulically calculated system shall be twenty feet per second.

Section 106.5.2: Amend to add the following:

- (6) A key plan indicating the location of each area controlled by each control valve, inspector's test valves, all auxiliary control valves, and all auxiliary drain valves.
- (7) Any special design criteria used to determine the system design, i.e., rack storage limitations, high-piled storage limitations, etc. These criteria shall be shown on the key plan.

(Ords. 25005, 25838, 26735.)

17.12.1140 Standard for installation of standpipe and hose systems (NFPA 14-2003).

NFPA 14-2003 edition is amended as follows:

Section 4.1: Amend to add the following:

4.1.4: Installations and materials shall comply with NFPA 13 as adopted herein.

Sections 4.2, 4.3: Delete

Section 5.2.5: Amend to add the following:

The water supply shall from the automatic fire sprinkler system. The connection shall be made prior to the sprinkler system water flow indicator. The connection shall be equipped with a check valve, monitored valve, flow switch, and a three-eighth inch orifice.

Section 7.8.3: Amend to read as follows:

Each hose outlet shall be provided with a gauge configured as depicted in 2002 NFPA 13, Figure 8.15.2.4 for system riser drain connections, regardless of the type of standpipe system installed.

(Ords. 25838, 26735.)

17.12.1150 Standard for installation of centrifugal fire pumps (NFPA 20-2003).

NFPA 20-2003 edition is amended as follows:

Section 5.12.1: Amend to add the following:

All exterior fire pumps shall be installed in a dedicated building (pump house).

Section 5.14.4: Amend to read as follows:

All fire pumps shall be installed with a bypass. The size of the bypass shall be at least as large as the pipe size required for discharge pipe as specified in Table 5.25b.

Section 5.14.4: Amend to add the following:

(6) Positive supply pressure shall be maintained through alarms that shall be arranged for audio and visual annunciation at the FACP and in the fire pump room if the water supply drops below 5 psi.

Section 5.16: Amend to read as follows:

Where provided, the suction valve, discharge valve, jockey pump valves controller valves, and isolation valves on the backflow prevention device or assembly shall be supervised open by the following methods:

- (1) Central station, proprietary or remote station signaling services through the FACP;
- (2) Locking valves open.

Exception: The test outlet control valves shall be supervised closed.

Section 5.19.1.1: Amend to add the following:

To facilitate flow testing, all fire pumps shall be equipped with both of the following:

- 1. Test Header. This device is connected to the discharge side of the pump and has a number of hose outlets (equal to the number required at 15 percent capacity \div 250 gpm). When testing the pump, the hose is connected to the outlets with water discharged in a safe location. Flow readings are usually taken from the end of the hose with a Pitot gauge.
- 2. Flowmeter. A special pipe is run from the discharge side of the pump back to the water supply (or to some other acceptable discharge point) with a flowmeter, control valve, and check valve in the line. When testing the pump, the control valve is opened partially (with the pump already running) to achieve the 100 percent flow condition. The valve is opened more to achieve the 150 percent flow condition.

Section 10.2.4: Amend to add the following:

Provide sufficient space in pump room so that there is adequate workspace on all sides of the pump and associated equipment.

Section 10.5.2.1.1: Delete Exception 10.5.2.1.6 (B).

(Ords. 25838, 26735.)

17.12.1160 Standard for private fire service mains (NFPA 24-2002).

NFPA 24-2002 edition is amended as follows

Section 7.8: Amend to add the following:

7.3.9 Fire hydrants shall not be under the control of valves controlling fire sprinkler and/or standpipe systems.

7.3.10 Fire hydrants shall not be subject to pressure supplied by way of a FDC.

(Ords. 25838, 26735.)

17.12.1170 Installation standard for fire alarm systems (NFPA 72-2002).

NFPA 72-2002 edition is amended as follows

Section 1.5.2.10.5: Amend to add the following:

Where the engine-driven generator is not constantly attended, audible and visible alarms powered by a source other than the engine starting batteries and not exceeding 125 volts shall be provided at a point of constant attendance. These alarms shall indicate the following:

- (a) Engine running (separate signal)
- (b) The controller main switch has been turned to "off" or "manual" position (separate signal)
- (c) Low fuel and trouble on the controller or engine (separate or common signals)

(Ords. 25838, 26735.)

17.12.1190 Installation standard for clean agent extinguishing systems (NFPA 2001-2004).

NFPA 2001-2004 edition is amended as follows:

Section 1-5: Amend to add the following:

1.4.2.5 Clean agent systems shall not be used in lieu of required fire sprinkler systems.

(Ords. 25838, 26735.)

17.12.1200 Installation standard for fire protection systems in clean rooms (NFPA 318-2002).

NFPA 318-2000 edition, including appendices is hereby added to the list of recognized standards, as contained in Chapter 45 of the 2007 California Fire Code, with the following amendments:

Section 4.1.2.1: Amend to add the following:

The extent of the calculated area shall be 3,000 square feet or the entire clean zone encompassed by a minimum of one-hour rated construction, whichever is less.

Section 4.1.2.6: Amend to read as follows:

Exhaust ducts shall be internally sprinklered in accordance with Section 4.1.2.6.1 of NFPA 318, when the largest cross-sectional diameter is equal to or greater than 10 inches.

Section 4.1.2.6.1: Amend to add the following:

Combustible non-metallic ducts whose largest cross-sectional diameter is equal to or greater than 10 inches shall be internally sprinklered.

Exceptions:

- (a) Ducts listed for non-sprinklered applications.
- (b) Ducts not more than 12 feet in length.

Section 4.1.2.6.10: Amend to add the following:

Approved inspection ports shall be provided in all internally fire sprinklered ducts for periodic inspection and maintenance.

Section 4.1.2.7: Amend to add the following:

Corridor fire sprinkler protection shall be designed in accordance with the Building Code as required for ordinary hazard Group 2. (See NFPA 13.) When the design area of the sprinkler system consists of one row of sprinklers in the corridor, the maximum number of sprinklers to be calculated need not exceed 13.

(Ords. 25838, 26735.)

17.12.XXXX Standard for hood and duct systems (NFPA 96-2001).

NFPA 96-2001 edition, including appendices is hereby added to the list of recognized standards, as contained in Chapter 45 of the 2007 California Fire Code.

APPENDICES

APPENDIX, 2007 CFC	California Adopts	San Jose Adopts
Appendix Chapter 1	No	YES, and Amend
Appendix Chapter 4	YES	YES
Appendix A	No	No
Appendix B	YES	YES, and Amend
Appendix C	YES	YES
Appendix D	No	No
Appendix E	No	No
Appendix F	No	No
Appendix G	No	No
Appendix H	YES	YES

Appendix B Fire Flow for Buildings, AMEND as follows:

B105.1 One- and two-family dwellings, Exception: A reduction in fire flow of 50 percent, as approved, is allowed when the building is provided with an approved automatic sprinkler system. The resulting fire flow shall not be less than 1,000 gallons per minute.

NOTE: consistent with current requirements.

B105.2 Buildings other than one- and two-family dwellings, Exception: A reduction in required fire-flow of up to 75 50 percent, as approved, is allowed when the building is provided with an approved automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2. The resulting fire-flow shall not be less than 1,500 gallons per minute (5678 L/min) for the prescribed duration as specified in Table B105.1.

NOTE: Consistent with current requirements. San Jose does not allow NFPA 13R.

Appendix D Fire Apparatus Access Roads: DO NOT ADOPT.

Fire will work with PW, DOT, PBCE, et al to create a "Local Standard for Fire Apparatus Access Roads" based on this appendix and existing local requirements.

Appendices E, F, and G: LEAVE in Appendix section, DO NOT ADOPT.